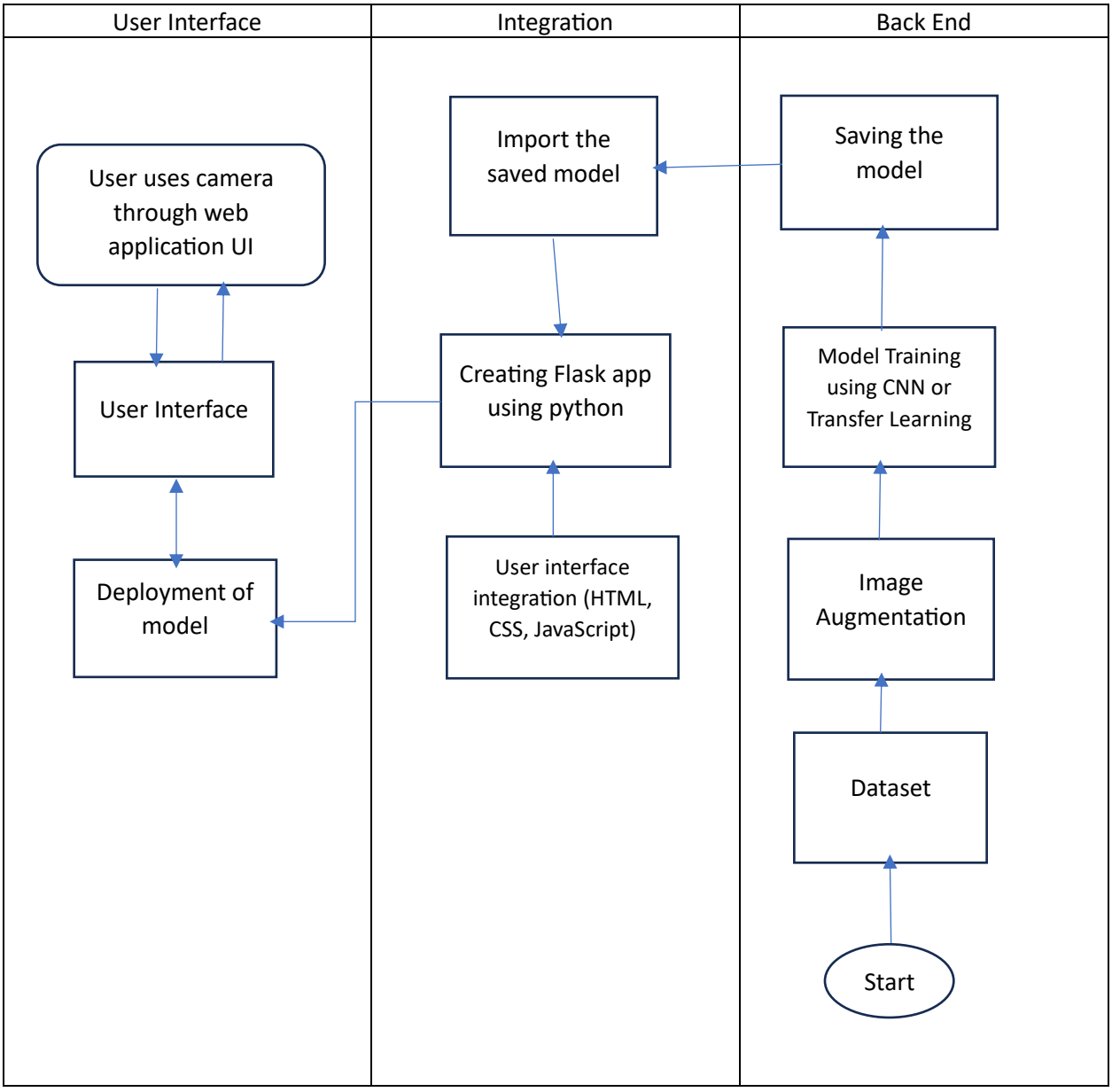
Project Design Phase-2

Technology Stack

Date	**19th October 2023**
Team ID	PNT2023TMID593074
Project Name	**Arming Against Violence- YOLO Weapon Detection Model**
Maximum Marks	**4 Marks**

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2



Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API's etc.)
4. Indicate Data Storage components / services
5. Indicate interface to machine learning models (if applicable)

Table 1: Components and Technologies

S. No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g.Web U	HTML, CSS, JavaScript / Angular Js /React Js etc.
2.	Application Logic	Logic for a process in the application	Java/Python
3.	Database	Collect the Dataset Based on the Problem Statement	File Manager, MySQL, NoSQL, etc.
4.	File storage/Data	File storage requirements for Storing the dataset	Local System, Google Drive etc.
5.	Framework	Used to Create a web Application, Integrating Frontend and Back End	Python Flask, Django etc.
6.	Deep Learning model	Purpose of Model	CNN, Transfer Learning etc.
7.	Infrastructure (Server/Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration	Local, Cloud Foundry, Kubernetes, etc.

Table 2: - Application Characteristics

S. No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Python's Flask
2.	Security Implementations	List all the security / access controls implemented,	Technology used
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Technology used
4.	Availability	Justify the availability of application (e.g., use of load balancers, distributed servers etc.)	Technology used
5.	Performance	Design consideration for the performance of the	Technology used